UNIVERSITY OF OTTAWA / UNIVERSIDAD DE PUERTO RICO
Faculty of Law / Escuela de Derecho
January 2012

Building Better Humans?

Course Outline

Ottawa classes: 4pm-7pm Fauteux Room 235
San Juan classes: 4pm-7pm Room L7-8
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Course Description

Many eminent scientists and innovators believe that the first three decades of the twenty-first century will produce computing machinery that will easily surpass the memory capacity and computational ability of the human brain. In addition to a multitude of educational, commercial, and military applications, these machines will be used to better understand the human brain, perhaps even to reverse engineer it. Concurrent research in nanotechnology – the science of building tiny machines a few atoms at a time – promises applications of similar or greater significance. These include the possibility that, within our lifetimes, we will be able to reconstruct our organ systems at the cellular level, redesigning the body so that it is no longer vulnerable to conventional pathogens. Scientists in related fields such as robotics and human-computer interaction are working to invent 'memory uploads' and other technologies that would further extend human function and would further blur the line between human and machine.

For some, the aim of such research is to improve the human condition; for others, it is to transcend it.

What is the worth of a research agenda that seeks ultimately to create new forms of intelligence that would one day exceed our own? What are the implications of generating machines that are able to self-assemble and ultimately self-replicate? Why develop a science that would alter the human body and function beyond recognition? What values underlie such programs of research? What public interests are at stake in their development?

Through an investigation of the sciences and technologies that attempt to put minds into machines and machines into our bodies, students enrolled in this course will examine many of the legal and ethical issues traditionally canvassed in the field of bioethics (e.g. the concepts of health/disease/mental illness/life/death/personhood; the right to life and death; patient/professional relationships; experiments with human subjects; research ethics; codes of ethics; the allocation of medical resources; testing and screening programs; health policy; etc.). Students will also address the possibility that new and future technologies will change the meaning and importance of these traditional concepts and questions. For example, how will health and disease be understood in a society with artificial or transgenic organs? How might the widespread or even mandatory use of neuropharmaceuticals change our understanding of mental illness? What ethical and legal implications would accompany human microchip implantation? What is the impact of cryonic suspension and reanimation on current notions of life and death? From non-invasive wearable computers to hyper-invasive nanotechnology, recent innovations concerning the augmentation and alteration of the human body provide students with a new and exciting lens through which to investigate a range of challenging moral questions about the future of health and humanity.

The principle objective of this course is to provide students with an opportunity to synthesize their analytic skills and their cumulative knowledge and understanding of the law of contract, privacy law, health law and human rights law etc., through an examination of several challenging theoretical and practical problems said to arise as a result of the advent of robotics and cyborg technologies. Students will have the opportunity to further refine their skills in public speaking and oral argumentation, and to renew their abilities in legal research and writing. The course will operate as a typical graduate seminar. Seminar participants should therefore expect to engage in a variety of learning methodologies other than the traditional lecture format. In addition to completing daily readings, attending the seminar on a regular basis and participating in class, seminar participants are expected to complete a team project assigned by the instructor. As this year's seminar will involve students from both the Universidad de Puerto Rico and the University of Ottawa, students should expect, embrace and relish in the opportunity to work with team members schooled in legal traditions other than their own.

Pre-Course Preparation

The instructor has not listed any courses as prerequisites. However, since this course takes place in a compressed schedule, students are expected to carefully read the following texts ***prior to*** the first class:

1. Kurzweil, Ray, "Chapter 1: The Evolution of Mind in the Twenty-First Century" in *Are We Spiritual Machines? Ray Kurzweil vs. the Critics of Strong A.I.* Available at http://www.kurzweilai.net/meme/frame.html?main=/articles/art0500.html
2. Bostrom, Neil, "A History of Transhumanist Thought" (2005) *Journal of Evolution and Technology* 14:1.
3. World Transhumanism Association, =B3The Transhumanist Declaration.Available at http://transhumanism.org/index.php/WTA/declaration/
4. Gumbs, Ken, *Building Gods* (Four Door Films, 2006). Available at: http://video.google.com/videoplay?docid=1079797626827646234&q=building+gods&pl=true

All of the above materials are available at *iankerr.ca*

**** It is absolutely essential that students read all four of the above items BEFORE THE COURSE BEGINS ****

Course Materials

Building Better Humans? eds. Ian Kerr and Jason Millar (Ottawa: University of Ottawa, 2012)

* all materials are available online at *iankerr.ca*

Evaluation (details will be provided in class)

Team Project 100 % Upload to iankerr.ca on Sunday January 2nd (*no later than 11:59 pm*)